

A Case study: Comparing reading strategies of advanced CFL learners on different genres and media of text

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Introduction

This paper reports findings from a case study that investigated the Chinese reading strategies of English speaking learners of Chinese as a Foreign Language (CFL). We focused on CFL learners' reading of different genres in two different formats, paper-based format and computer-based hypertext format (henceforth hypertext format). Since Chinese characters are categorized in deep orthography, which means individual symbols (which are associated with the meaning and the sound of an entire word or morpheme) are not apparent compared to languages such as English (Koda 1999). For this reason, English speaking CFL learners often experience difficulties when they read Chinese text until they develop metalinguistic awareness in Chinese. Therefore, scholars have focused on lower-level Chinese reading processes, the recognition of Chinese characters (Koda (1996), Hayes (1987a and 1987b) and Everson and Sergent (1992)).

However, researchers of Chinese also need to understand different uses of CFL learner's reading strategies in higher-level Chinese reading (e.g., different uses of reading strategies depending on genres). Despite the increasing number of advanced CFL learners in Chinese reading class, only a few higher-level Chinese reading studies are available (Hayden 2004, Everson and Ke 1997). Furthermore, the reading materials for their researches are based on one genre, i.e., newspaper or textbook, and one format of text, i.e., paper based text or hypertext. Current CFL learners read and require reading online sources for their advanced Chinese classes. For example, many CFL learners have been using hypertexts, such as online and hypertext-based glossaries and dictionaries. No study is currently available that focuses on their frequent use of various genres of Chinese hypertext. Therefore, it will be worthwhile to study the different reading processes of CFL learners when they read Chinese text in different formats.

The goal of this paper is to find general patterns of CFL learner's different reading strategies in relation to genres and text formats (paper based text and hypertext). This paper will answer two following questions:

- 1) Do different genres of reading trigger CFL learners to use different strategies?
- 2) Do CFL learners use different reading strategies based on the format of texts?

In order to answer both questions, this paper utilizes four different genres of reading; namely, traditional Chinese literature, modern Chinese literature, informational reading (textbook and newspapers), and advertisement in text and hypertext formats.

Literature Review

The studies of CFL learner's reading strategies (Hayden 2004, and Everson and Ke 1997) utilize metaphorical models of reading to understand CFL learner's reading. These studies show

that metaphorical models of reading can reveal the general patterns of reading strategies of advanced CFL learners. Metaphorical models of reading consist of three models: bottom-up, top-down, and interactive model. In the bottom-up model, readers decode and translate each word from the text with little interference from their background knowledge. Take the Chinese reading as an example: First, readers recognize the character. Second, they connect the character with pronunciation and meaning. Later on, they combine each single character to process the whole sentence. On the contrary, in the top-down model, readers have a set of expectation and background knowledge about the text, so that they move their eyes to the page which they can gather sample information about the text. Since readers already have a set of expectation and background knowledge about the text, researchers tend to believe that the foreign language learners with high language proficiency use the top-down model. The interactive model is a mixture of both the bottom-up and top-down models. In this case, readers read each character without guessing from text content and they are able to identify the place of text which contains the main idea of text.

Hayden (2004) used eye tracking device to show how learners use different reading strategies to comprehend computer-based Chinese reading tests. Everson and Ke (1997) used think-aloud protocol to examine how student read newspaper with different strategies. However, Hayden's method (2004) has some limitation when applied to understand advanced Chinese learner's reading strategy. His text is one paragraph Chinese text with multiple choice questions in English. Everson and Ke (1997) did not provide the language background of the participants. Their finding can only apply to the informational text in paper-based text. Therefore, the study on advanced CFL learners reading strategies on various genres is needed.

In the field of Chinese reading, there is no study on the CFL learners' hypertext reading strategies. In fact, in the field of foreign language reading, the research on hypertext is very rare. Only scholars in Computer Assisted Language Learning (CALL) have conducted their research on foreign language learner's hypertext use in foreign language learning. Researchers (Tolhurst 1995, Son 1998 and Salmersón et al. 2005) in CALL agreed that hypertext is the interrelated nodes and has non-linear orders. Because of this non-linear organization of hypertext, scholars claimed that researchers need to pay more attentions on how readers utilize nodes and link to inquire additional information. However, besides the studies on the use of hypertext glossary and hypertext which is designed for foreign language learners (Chun 2001, Edmonds 1997 and Son 2003), the studies of foreign language learner's hypertext reading has not been investigated. Therefore, the study on CFL learner's hypertext reading will be very meaningful.

Method

1. Participants

Three English speaking CFL learners were recruited for this study. The participants' names in this paper are all pseudo names. All participants took one or two Chinese literature courses either in English or Chinese. Therefore, they stated that they have basic knowledge of Chinese literature. At the time of data collection, all participants were attending their 4th year with intensive high-level Chinese language classes. All three participants have been studies Chinese more than three years and they all have experience living in China.

Name	Length of Chinese study	Duration of staying in China	Frequency of online reading
Denny	3 years	15 months	everyday
Jane	4 years	six months	occasionally
Mike	3 years	eight months	everyday

Table 1: The background of the three participants.

All three participants use the Internet to read Chinese texts. For Denny and Mike, they love reading their Chinese friends' blogs and they chat with their friends in Chinese and English online everyday. Beside Chinese classroom activities, Denny and Mike also read Chinese romance novels in order to improve their Chinese, even though they did not appreciate literature readings.

2. Data Collection:

The data for this study include interview, think-aloud protocol, participant's summarizing of text, and participant's marginalia. Participant participated in this study once or twice a week for eight weeks. Their think-aloud protocols and summarizing of texts were recorded using digital recorder. The readings for this study are informational texts (textbooks and newspaper), Chinese literature (Tang poem and personal essay), advertisement, and Blogs. Table 2 lists the reading material for paper-based text and hypertext. Participants read two texts for each genre. They read a total of 21 texts.

Paper based text	Hypertext
Informational texts: Textbook Newspaper	Informational texts: Textbook Newspaper
Tang poems	Song prose
Personal essays	Personal essays and Blog
Newspaper advertisements	Advertisement from Chinese MIT BBS

Table 2: The reading materials for participants.

During each meeting, participants were first asked to do think-aloud protocol which is to verbalize their inner thoughts when they read the assigned reading. For example, participants were asked to speak where they are reading, and how they guess the characters which they did not know. Using the think-aloud protocol, they can mark and make notes on the paper, and highlight texts on the computer screen using mouse. The mouse movement was captured by Snagit program. Then, they summarized the text orally. After that, questions regarding their think-aloud protocol and their general feeling about the texts are asked. Think-aloud protocol is used for analyzing metaphorical modes of reading (bottom-up, top-down, and interactive models). Participant's marginalia helps to judge how they recognized characters in the texts.

Summarizing text is a tool for measuring their reading comprehension. The interview provides information about his attitude to different genres of text and different text formats.

Findings

Three participants used all three reading strategies, top-down, bottom-up, and interactive models, depending on genres and format of texts. They used different reading strategies not only for the different types of genres, but also for their preference of genres of texts. The use of their reading strategies were categorized into four patterns. The first pattern is the reading strategy for the traditional Chinese literature reading. The second one is the strategies for informational reading. The third strategy is the poem reading strategies for hypertext. Finally, the last one is the change of reading strategies according to the location of hyperlink.

1. Unfamiliar and undesirable reading on paper-based texts

When the participants were asked to read traditional Chinese literature and modern Chinese literature, they expressed their dislikes of literature reading. Their reactions to the literature reading were:

Mike: Oh my...this is Chinese poem. Hum.. I don't like LITERATURE readings.

Jane: Oh, I know this, I know this... This is famous. I read this in my literature class in English. But I don't know. I don't read (Chinese) poem.

After they showed their view on Chinese literature, unfamiliar and undesirable reading, all three participants first used the bottom-up model and later the top-down model regardless of the format of texts. For example, when they read Tang poems, they first tried to recognize the pronunciation and the meaning of characters in order to comprehend the overall context of Tang poems. If the bottom-up strategy did not work for them, they utilized the top-down model. Despite their changing of reading strategies, they gave up on three out of four Chinese traditional poems and prose. When they read personal essays, they also first used the bottom-up and later the top-down model. Similar to the poetry reading, they gave up comprehending three essays. There is one exception, one essay about the writer's favorite food and his feeling of hometown. Since they could use their background knowledge to understand the context of the text, they were able to summarize the essay. For that personal essay, two participants, Jane and Mike, used the interactive model. They were able to recognize the character and word boundaries automatically from the sentences and phrases. This assists them to better understand the text.

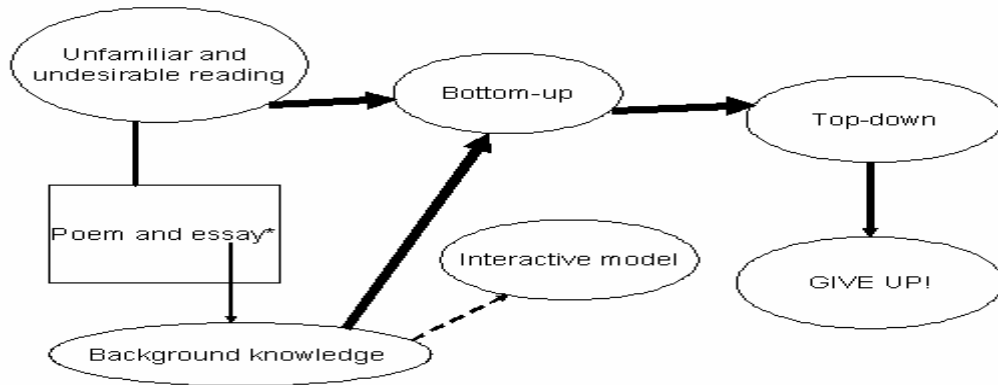


Figure 1: Reading strategies for traditional Chinese literature (the thickness of the arrow indicate the frequency of a particular reading strategy).

2. Informational reading in paper-based text and hypertext

The second pattern depends on the format of text. Participants chose different reading strategies when they read informational reading extracted from textbooks and newspapers. When they read textbook reading on paper format they use the bottom-up model. As they mentioned in their interview, they always read the paper-based reading textbook in this manner. Therefore, even their task was briefly summarizing the main idea, they tended to use the bottom-up model. However, when they read newspaper articles on hypertext, they showed a tendency to use the top-down and interactive models. In the case of hypertext, Mike and Denny used the top-down or interactive model, but Jane used the bottom-up model. The reason that Jane often used the bottom-up model is that she treated participating in my study as a way to improve her Chinese reading. Therefore, she told me that she wanted to know every single character in the text in order to build and to expand her vocabulary. For other genres and formats of reading, Jane used the bottom-up strategy for most of the cases.

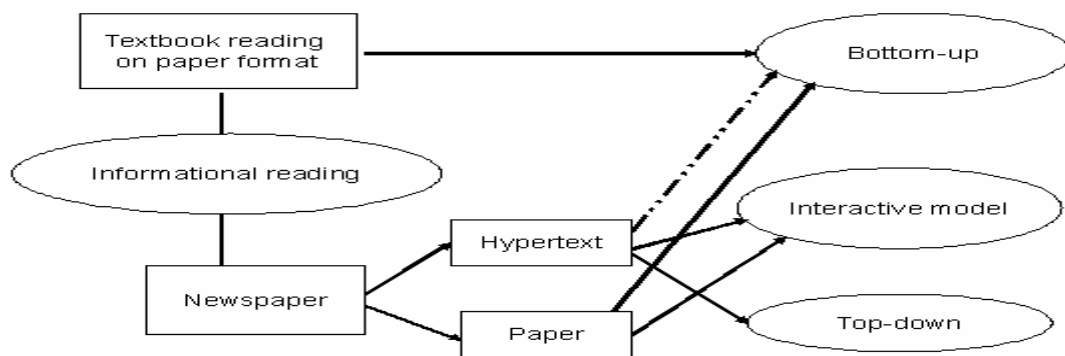


Figure 2: Different reading strategy depending on paper-based text and hypertext (with dotted lines indicating Jane's reading strategy).

3. Hypertext reading

The third pattern is participants' different reading strategies on hypertext reading. Denny and Mike mostly used the top-down strategy except literature readings. They indicated that they seldom read literature in hypertext format either in English or in Chinese. Therefore, they said that they were not familiar with reading literature. The purpose of reading hypertext is to acquire the information. Therefore, they mentioned that they did not pay attention to the details of the texts. Thus, they usually used the top-down model in English and in Chinese. Both of them said "that is the way I read hypertext in English and in Chinese". However, Jane used the bottom-up strategy except one essay reading. She said that:

I don't read English hypertext in this way (bottom-up)...I want to learn Chinese...I want to know every character in the texts. If I can't pronounce the characters, it bothers me.

In Jane's case, learning reading Chinese is recognizing all the characters in the text. Therefore, unlike other participants, she used the bottom-up strategy regardless of text format, genres, and purpose of reading, summing the texts.

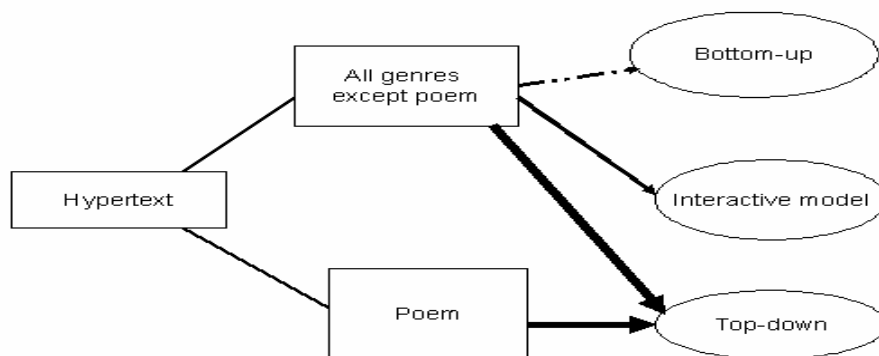


Figure 3: Different hypertext reading strategy depending on genres.

4. Interference with nodes in hypertexts

The last pattern is how different organizations of nodes in hypertexts influence participants' choices of reading strategies. Nodes are the device link between different hypertexts. In the hypertext, nodes can be textual, image, sound and video. In hypertext newspaper articles, nodes are often textual. Furthermore, Chinese newspaper articles contain many hyperlinks inside the texts. The nodes inside of text are the hyperlinks which connect related news articles¹. The nodes which exist outside and margins of newspaper articles are often advertisements. For example, when they read song prose and online newspaper articles, they were distracted by the text nodes. For this reason, they changed their reading strategies. In the case of Denny and Mike, when they read the newspaper articles, they first used the top-down strategy, that is, they read the first sentence in each paragraph. However, when they moved their eyes to the text nodes in a box which is located in the middle of text, they said they are confused. They started reading each character of text nodes. This shows that when they encountered unfamiliar styles of

¹ See appendix 1

text, they utilized the bottom-up model. Once they finish all text nodes inside of the main text, they realized that those were hyperlinks to other relevant newspaper articles. After they understood the functions of the text nodes, they switched their reading strategy back to the top-down model to finish the articles.

An interesting finding is that all three participants were not influenced by the nodes which were located at the margin and outside of the main texts. They did not read or move their mouse to those nodes. They knew that the nodes in the margin and outside of the main texts are not relevant. One possible reason that participants were not distracted by the nodes outside of text is that they are familiar with this format of hypertext design in their English hypertext news article reading.

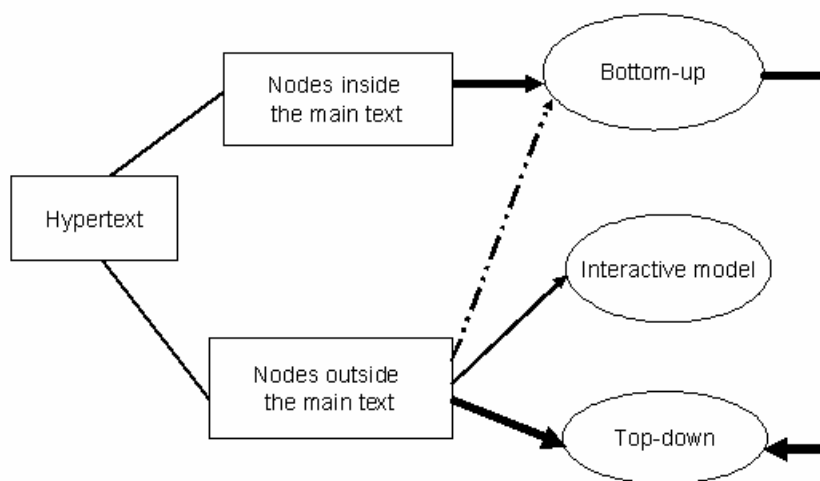


Figure 4: The influence of the location of nodes in reading strategy.

Conclusion

This study shows that advance CFL learners use different reading strategies based on difference genres and text formats. However, they did not use different reading strategies depending on the purpose of reading. When the participants read undesirable and unfamiliar genres, such as traditional literature, they used the bottom-up strategy in the beginning, and later used the top-down strategy, and finally gave up. However, despite the fact that they are unfamiliar with the genres of essay, they sometimes could finish reading the whole text. For example, they completed reading one of the personal essays using their background knowledge about Chinese food. This suggests that one of the ways that teachers can encourage students to read unfamiliar genres is to build and activate their schema through pre-reading activities.

For the familiar genres, such as textbook reading, participants had a tendency to use one reading strategy, i.e., the bottom-up model, regardless of the purpose of reading. In addition, in the case of preferred reading such as online advertisement and personal essays in blogs, they were inclined to use the top-down and interactive models. It seems that they tended to choose a particular reading model, depending on their preference and familiarity, but disregard the purpose of reading texts. In order to engage students in meaningful, efficient, and selective reading activities, teachers need to emphasize the purposes of reading certain texts as well as explicitly explain the reading strategies that they can apply to various genres of texts.

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Appendix 1.

<http://finance.icxo.com/htmlnews/2006/10/11/954270.htm> (accessed 10/18/2006)

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